



September 15, 2017

Mr. Craig Hill
Harris County Pollution Control Services Department
101 South Richey, Suite H
Pasadena, TX 77506

RE: Request from Harris County Pollution Control
Arkema Inc. Crosby, Texas Facility

Dear Mr. Hill,

This letter responds to your email of September 5, 2017. Since your email was received, Arkema has obtained a substantial amount of information about the site, the conditions around the site, and the results of EPA's air and water monitoring during the incident. As a result, we believe that we have satisfied many of the issues that you identified in your email, and are including that information with this letter.

Specifically, we offer the following responses to your requests.

- Provide a copy of the Site Clean-Up Plan.

Arkema has retained Environmental Resources Management (ERM) to prepare a Sampling and Analysis Plan for the Arkema Crosby site. This plan will serve as an initial assessment of potential impacts from Hurricane Harvey and the trailer fires that occurred at the property. A copy of this plan is included with this letter as Attachment 1. If the results of that investigation indicate that constituents of concern ("COCs") are present above the applicable TRRP Protective Concentration Levels, we will prepare a site clean-up plan based on the results of the initial assessment and consistent with the TCEQ spill rules or the TRRP rules, as applicable, and we will provide a copy of that plan to your office.

- Maintain fence line air monitoring until completion of clean up. Provide daily results and final report.

The daily community air monitoring performed by Arkema during and after the fire events through September 8, 2017 has indicated that virtually all compounds are present at non-detect levels with the exception of PM2.5, which is always present in Houston air and was expected during the fires themselves. A copy of these results is provided in Attachment 2.

EPA's air monitoring results at the site showed a few trace detections of peroxide and 1-butene, but they were well below TCEQ short-term Air Monitoring Comparison Values (AMCVs). There is no reason to believe that any emissions produced during site clean-up efforts will approach the

emissions produced during the actual combustion events because the underlying product was destroyed in the fires.

All clean-up activity at the Crosby site, including fire residue removal, soil and surface water sampling, etc. has been and will continue to be conducted in accordance with an appropriate health and safety plan with monitoring for VOCs to protect workers from potential exposure. To date, however, there have been no detections above action levels. Arkema does not believe that ongoing fence line monitoring is necessary in this situation as we are monitoring the air in much closer vicinity to the actual impacted area.

- **Develop a Surface Soil Sampling Plan** for within the exclusion zone to identify impact of soot. This plan should compare results in the soil to anything identified in the analysis of the ash performed by Arkema.

Upon regaining access to the Crosby site and former 1.5 mile exclusion zone from the Unified Incident Command, Arkema has been sampling ash from the Crosby site and, at the request of residents, from other properties within the exclusion zone. We are providing you this information. The sample locations and analyses of the ash that are available to date are presented in Attachment 3.

As you can see from the reports of the ash analyses, for 13 ash samples that have been collected and analyzed to date, none of the concentrations of detected potential constituents of concern (COCs) exceeded the direct contact action levels ($^{To}Soil_{Comb}$) for the conservative 0.5 ac, residential land use exposure scenario under the Texas Risk Reduction Program (TRRP) rules (30 TAC Chapter 350). As a result, the ash does not represent an actionable release subject to the TRRP rules and therefore no surface soil sampling plan or TRRP response is justified or required. If Arkema receives any additional ash sampling results that are inconsistent with the results we have obtained to date, we will contact your office to discuss them.

- **Develop a Water Well Sampling Plan** to identify the presence of compounds that could have been carried by flood water from Arkema. Sample all downstream wells.

The only credible mechanism by which someone's downstream well could have been contaminated by chemicals associated with the Crosby plant is if the storm water runoff contained chemicals flowing off the Arkema site and infiltrated a downstream resident's defective well casing.

There was no firefighting for the trailer fires, and therefore no water releases that would typically be associated with such activity. EPA performed sampling of surface water runoff during the incident. EPA has released its analyses of surface water runoff samples collected during the incident, which showed no detections of any VOCs or SVOCs in the stormwater flowing off the Arkema site.

There is no surface water body adjacent to the plant site, and the only water that is available for sampling is the stormwater trenches in and around the plant. Since obtaining access to the plant, Arkema has conducted surface water sampling in storm water trenches throughout the site and, based on the sample results received to date, it has determined that the VOCs and

SVOCs that have been detected are below the applicable TRRP protective concentration levels ($^{GW}GW_{ing}$) for residential land use except for one sample collected in an isolated ditch in the center of the plant. A copy of these sampling locations and analytical results are included as Attachment 4. Arkema will provide you with a copy of additional analytical results when they are received.

The chemical analyses performed in and around the plant site both by EPA and Arkema do not indicate that COCs were released from the site in amounts that would impact private wells. While there is legitimate concern that the Hurricane Harvey floodwaters may have contaminated private drinking water wells, that concern—at least downstream of the Crosby plant—is bacteriological, not chemical.

In light of the announced availability of free water well testing being offered by EPA and TCEQ as a result of the hurricane and the EPA public statements mentioned above, an Arkema-sponsored water well sampling program downstream of the plant is not justified.

Arkema intends to cooperate in good faith with Harris County Pollution Control and all others in responding to the incident arising from Hurricane Harvey. If you have any questions concerning this request, please do not hesitate to contact me at (610) 878-6632.

Sincerely,



JeanMarie Cencetti
Director of Environment and Sustainable Development

cc:

Mr. Roberto Bernier, EPA Region 6
United States Environmental Protection Agency Region 6
1445 Ross Avenue, Suite 1200
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Attachment 1

Sampling and Analysis Plan

Attachment 2

Arkema Daily Community Air Monitoring Reports

Attachment 3

Ash Collection Locations and Analytical Results

Attachment 4

Arkema Surface Water Sampling Location Map and Results